

GISEKIA PHARNACIOIDES, A NEW WEED

R. K. GODFREY¹

The loose recently tilled sandy soils of a number of orange groves in Orange County, central peninsular Florida, are presently inhabited by large numbers of plants of *Gisekia pharnacioides* L. (Phytolaccaceae). This is an Old World annual plant much resembling *Mollugo verticillata* L. in habit and certain superficial characteristics. It has not been previously reported as a naturalized introduction to this continent and I have no information as to when it first appeared or by what means it was introduced. I first saw the plant in a single orange grove in the summer of 1958. Later in that year Professor Erdman West, University of Florida, Gainesville, told me that a plant of this species had recently been sent to him for identification from an orange grove in the vicinity of Lake Alfred, Polk County, Florida. Traveling through central Florida in the summer of 1961, I saw it in numerous orange groves in the general vicinity of my first collection, between Oakland in Orange County and the Ocala County line, but did not see it elsewhere.

Although this weed appears to flourish in cultivated, loose sands much as do *Mollugo verticillata*, *Diodia teres* Walt., and other annuals, it would not appear to be any more of a problem agriculturally than are other such ubiquitous weeds.

There are several species of *Gisekia* which occur in different parts of the Old World. Specimens of our plants were sent to Dr. Carroll E. Wood, Jr., Harvard University, who very kindly compared them with specimens at the Gray Herbarium. He said that ours best matched specimens of *Gisekia pharnacioides* from India.

Citations for my specimens are: Orange County, Florida: locally abundant in an orange grove, 5 miles south of Oakland, Aug. 8, 1958, *Godfrey 57373*; abundant, loose sandy soil, orange grove, 3 miles north of jct. Fla. Rt. 530 and 545, south of Oakland, *Godfrey and Reinert 61029*.

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Gisekia pharnacioides is a somewhat succulent, glabrous annual with several subequal prostrate principal branches spreading radially from the base. The leaves are opposite, the branching is opposite except as one of the two laterals may fail to develop. Leaves short-petioled, narrowly lanceolate, elliptic-lanceolate, or linear-oblong, entire; midvein

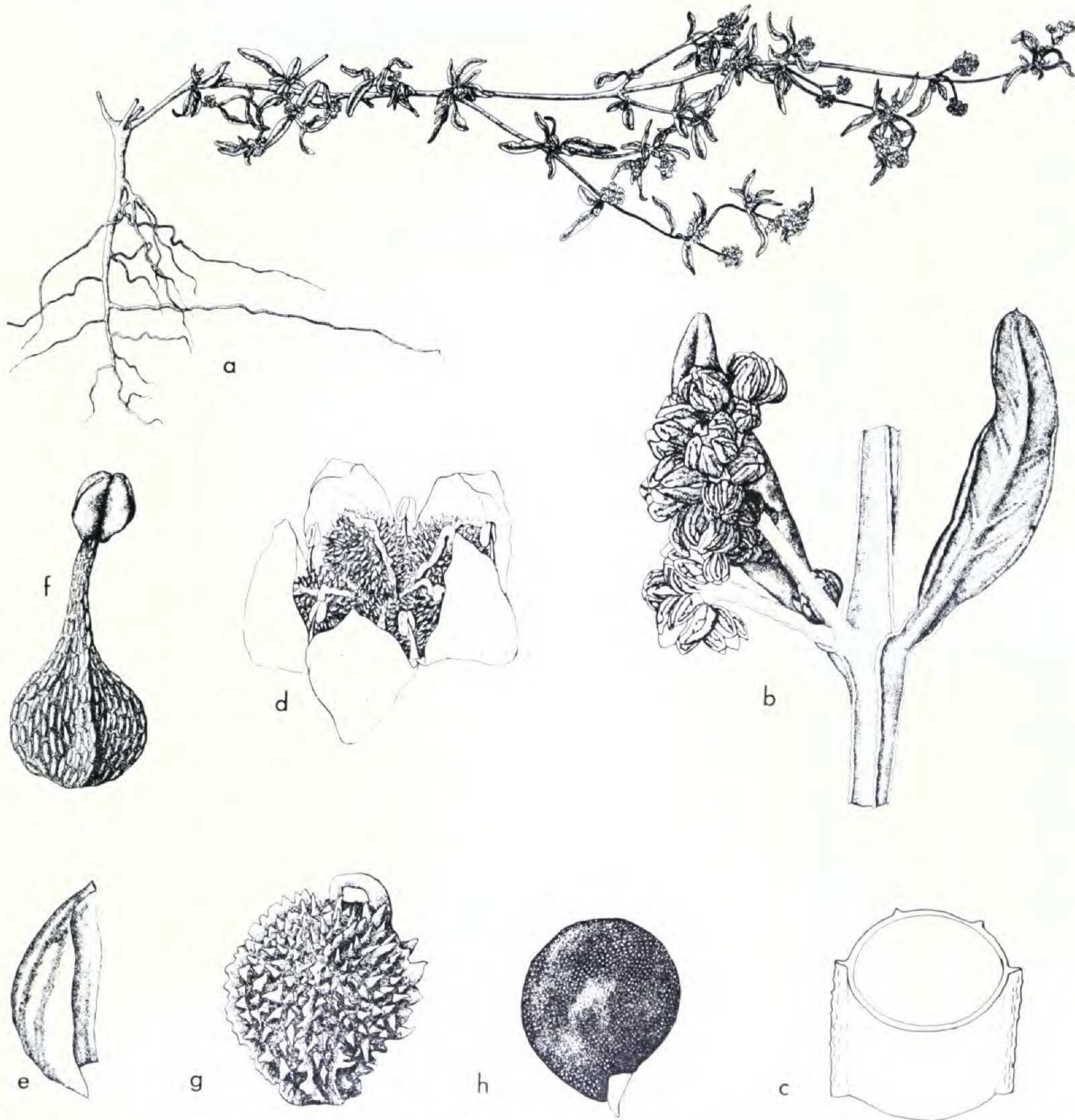


FIG. 1. *Gisekia pharnacioides*. a. Habit, all except one branch removed. b. Node with an axillary dichasium. c. Outline of cross-section of stem. d. Flower. e. Sepal. f. Stamen. g. Ovulary. h. Seed.

prominent below, depressed above, lateral veins scarcely evident; upper leaf surface deep green, finely punctate, the lower pale green, somewhat roughly granular-punctate; lowermost margins of the blades with translucent band-like edges which are decurrent on the petiole thence across the

swollen nodes and finally decurrent along the stem as narrow pebbly ribs to the next node. The stem body is essentially terete aside from the four ribs which are more or less obscured in drying; between the ribs lesser striae are sometimes evident. The stems are reddish in color.

Inflorescences are axillary dichasia and are produced more or less throughout the branches, the terminus of each major branch ending in a dichasium. In a given axil, the dichasium consists of a solitary short-stalked central flower with two lateral compact, compound, stalked dichasia, the stalks up to 1-2 cm. long but frequently very unequal in length. Each of the laterals is subtended by a subulate bract.

Individual flowers are small, about 2 mm. long. The calyx is comprised of five boat-like sepals, white-hyaline along their lower margins, and pink-hyaline at their obtuse tips. No corolla is present. Stamens five, alternating with the sepals and about equalling them in length, the filaments translucent, much dilated at the base and abruptly narrowed upward, the anthers white. Carpels five, free, flattened, oblique relative to positions of attachment and of the stigma, but nearly circular in outline; carpel wall thin, translucent or almost transparent but densely clothed with white, thickish, spicule-like, but soft protuberances, somewhat erose-winged along the flattened margins. Style soft and flat, short, arising obliquely and incurving over the summit of the ovary, stigmatic at the tip. Ovules one in each carpel. In fruit, the ovary wall is thin and virtually transparent but the dried protuberances of its surface make it appear coarsely granular. The seed is oblique-lenticular, nearly circular in outline, very dark brown or black, its surface lustrous and finely punctate, so closely enveloped by the thin ovary wall that it shows through.

Individual plants vary greatly in size as is characteristic of many kinds of annuals. Where they grow very thickly, individuals are small, the branches tending to be ascending. Isolated plants are in general much more vigorous, have branches 6-8 dm. long, perhaps more, and are definitely prostrate. — DEPARTMENT OF BIOLOGICAL SCIENCES, FLORIDA STATE UNIVERSITY, TALLAHASSEE.